The impact of completing a drink driving rehabilitation program on future drinking: the clients' perspective

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Abstract

The paper explores the role and focus of drink driving rehabilitation programs. It is particularly concerned with whether programs that specifically focus on reducing driving after drinking also have a positive effect on clients' levels of drinking.

A sample of volunteering clients was recruited while they were participating in the Australian "Under the Limit" program and they were followed up at least three months post completion. Response rates were very low and the sample is assumed to reflect the views and outcomes of persons who felt positive about the program. Clients reported large and meaningful reductions in their drinking and in their drink driving. They also reported important moves towards action and change in their drinking habits. The findings deserve to be followed up given the fact that drink driving programs are generally of much shorter duration than alcohol focussed interventions. There is a need for further research in this area and for developing more effective recruitment strategies.

Background

Drink driving is a major public health issue and while the ongoing use of Random Breath Testing (RBT) and similar international countermeasures has lead to meaningful reductions , there are still a large number of offenders who are convicted each year. The use of educational and therapeutic programs has been on the increase, with many magistrates tending to refer to programs rather than see offenders incarcerated. Ideally, it is preferable to see offenders rehabilitated and change their behaviours to stop reoffending.

A large proportion of drink driving offenders have a background of heavy and risky alcohol use or dependence, particularly those who are considered to be 'hard core' recidivist drink drivers. The aims of most North American drink driving interventions are primarily concerned with reducing the overall level of alcohol consumption and associated alcohol dependence. The assumption here is that reducing drinking will have the flow on effects of reduction of drink driving.

Two major studies (1, 2) have found that such programs are effective in reducing subsequent drink driving offences but they are very long [36 mths] and intensive and are also very expensive for the State provider. A meta-analysis conducted by Wells-Parker and others (1) found that participation in a drink driving rehabilitation program resulted in an 8-9% reduction in drink driving recidivism. Programs that addressed both overall drinking behaviour, as well as drink driving behaviour were found to be more effective. Research in California found that licensed drivers convicted of Driving Under the Influence (DUI) were less likely to reoffend after completing an alcohol treatment program when compared with those who experience a licence "suspension only" penalty (2).

An alternative model which tends to be used in Europe (3), the UK (4) and Australia (5,6) is an approach that focuses particularly or exclusively on the prevention of further drink driving. These programs are comparatively shorter (around 3 mths) and the main aim of the major Australian programs, particularly the one being examined in the current study, is separating drinking from driving. This fits the model of harm minimisation for drinking by reducing one of its major negative outcomes, driving, and such programs have not been as concerned with changing alcohol use as such. In fact the large New South Wales (NSW) program (5) specifically avoids any focus on alcohol use. A review of this Sober Driver Program (NSW) that focuses exclusively on drink driving reduction found that recidivism rates were significantly lower for offenders who participated in the program (5,6).

There is some consistency in the reports of the criteria for effective drink driving reduction programs. (1,3,7)An interesting aspect of this issue is that the process elements that are generally recognised as required for effective drink driving programs are also reported as characteristics of effective alcohol dependency interventions. (8) These common elements are indicated with an asterisk in the following Table 1.

Table 1. Elements of effective drink driving programs

Non-core process elements	Core process elements
Undertaken in addition to licence restriction and/or supervision.	Group programs – 10 participants most common size reported in effective programs.*
Offenders perceive transparent and objective client selection.	Longer rather than shorter programs (approx. 10 sessions over 10 weeks). * Though not the very long (30 months) North American programs.
	Interactive discussion – active learning not didactic teaching.*
	Use of drinking diaries and trackers to develop strategies for high potential drink driving situations.*
	Information essential but not sufficient.
	A focus on personally relevant strategies and skills to avoid drink driving and group processing of problem solutions.*
	Staff trained to handle class relationship problems professionally.
	A formally structured program defined by a written manual.

One important associated issue is that there has been consistent international (Europe, UK, Australia) replication of drink driving rehabilitation program effectiveness with high recidivist drink drivers (3,4,7). A second factor influencing management of this issue with drink driving clients is the long term debate about the ultimate responsibility for drink drivers. Is it a health or transport issue? If it is defined as an alcohol dependency problem then the responsibility for rehabilitation lies in a health intervention. However, if the alcohol problem is defined as of secondary concern and the focus needs to be on stopping people from driving after they have been drinking then it becomes a transport responsibility.

The aim of the present study is to determine whether a therapeutic drink driving program, namely the Queensland "Under the Limit Program", which aims to reduce impaired driving can have the additional and separate outcome of reducing drinking by participants. This could have implications for policy regarding rehabilitation programs for drink driving where the reduction of drinking is not the main aim of the program, but rather an important secondary aim or simply an unexpected outcome.

This self report study examines whether a drink driving rehabilitation program reduces the participant's level of alcohol use after program completion.

Under the Limit Drink Driving Program

The "Under the Limit" drink driving rehabilitation program has been available through Queensland courts as a sentencing option since 1993. The program was based on research and consists of 11 lessons (each 1½ hours) and is delivered mainly through the TAFE system, costing around $750 for fees in the program (payable by the offender prior to commencement of the program and set as the equivalent of the current fine for a serious offence). Drink driving offenders may be offered the UTL program by the magistrate in lieu of their normal fine, and if they opt to do the program, they are put on probation under supervision of a Community Corrections Officer.

After considerable developmental research the first version of the program focussed on the separation of driving from drinking as an explicit goal. This was based on findings at the time of development that there were very high levels of resistance by offenders to recognising or changing drinking behaviours as such. Since that time there has been a major recognition by the community and by drink drivers that they are engaged in dysfunctional drinking behaviour and that management of their drinking is a high priority. In response to this change, in 2006 the Centre began a major re-write of the program which continues the explicit focus on drink driving but also includes components that draw on the most recent alcohol treatment literature. In particular it includes sessions that aim to increase motivation to reduce drinking, use of the AUDIT as a personal screening tool [9] and changes to the weekly diary and review sessions. In addition the issue of unsafe licit and illicit drug use in the context of driving has been included.

The extensive literature on drink driving recidivism and informal feedback from the State Coordinator and numerous facilitators has indicated that excessive alcohol consumption is a primary problem for many offenders. The program is particularly concerned with separating driving and drinking with alternatives to driving actively reinforced. However, the issue of poorly managed alcohol consumption is also targeted from both a cognitive behavioural counselling approach and a health perspective. A variety of approaches and social strategies are introduced and processed through group sessions to help the participants reduce their alcohol consumption. Previous studies have suggested that participants experience the program as a warning regarding alcohol consumption and targeted outcomes have included movements in participants through "stages of change" regarding managing their alcohol consumption. In addition to the focussed group process activities in the final session, participants are strongly encouraged to consider accessing local community Alcoholics Anonymous groups through the community helpline. In addition the Community Corrections

Officers who are associated with the participants through probation and parole regulations are encouraged to refer participants to alcohol management programs.

The UTL is an important initiative with state wide coverage providing service in urban, rural and remote communities. Alcohol dependency is an endemic problem and drink driving recidivism levels are high.

Our own examination of the re-offence rates of Queensland drink driving offenders who did not complete the program is given below in Table 2. (10). The data indicates that whilst offenders living in remote regions are 20% more likely to re-offend than Metropolitan offenders, this increases to 29% higher rates for those on high BAC's and to 65% for those persons with more than one previous offence.

Table 2. Difference by category of 5-year offence rates among Queensland drink driving offenders, 2001 -2006 (10)

Category	Offence Rates
Remote: Metropolitan and regional	+ 20%
BAC at index offence ≥ 0.15 mg/L: BAC <0.15 mg/L	+ 29%
At least 1 prior drink driving offence: First drink driving offence	+ 65%

The current research aimed to determine whether the re-written program with its added focus on reducing drinking levels has the potential to move persons with alcohol dependency into a treatment mode that would otherwise not occur without the stimulus of court supported referral to rehabilitation.

Previous evaluations have examined the effectiveness of the UTL Program. The UTL Program has been shown to have a very high level of outreach, and currently approximately 480 offenders complete the program each year. It was evaluated using Transport and Police records to 1997, and found to be significantly effective in reducing drink driving re-offending with the serious multiple recidivist group. A more recent evaluation, undertaken in parallel with this project, replicated these findings and found significantly reduced drink driving re-offence rates for multiple offenders completing UTL compared with a Queensland comparison sample (11).

Overview of study

The aim of this study was to examine whether the UTL Program reduced the level of alcohol consumption either directly as a result of participation in the UTL drink driving program or through increased use of community alcohol programs by participants.

The research reported here involved an examination of clients' attitudes, knowledge and behaviour regarding drink driving and drinking after the completion of the course.

Methodology

Participants

The participants for the study were clients who had completed the Under the Limit program (drink driving offenders). Typically these are recidivist offenders or those at high range BAC or high risk at the time of apprehension. A very small number of first offenders are referred to the program and it is our experience that these persons probably have other very serious offences leading to the magistrate's referral.

Procedure

During the UTL program, there are two opportunities where facilitators can ask participants' consent to be followed up at a later date. Taking place at week 3 and week 10 of the program, this allows facilitators to discuss the research involved in this project and obtain voluntary consent. Over a very extended period of time, 150 offenders agreed to be followed up in this study. They signed a consent form and were registered. This consent form also required address/email to contact participants. The follow up questionnaire was sent via the preferred method (postal address or email questionnaire) 3 months after the program. However four stages of follow up were finally attempted: mail out; email; and multiple day and night telephone contacts. This finally lead to the agreement of only 30 participants to take part. These persons are not representative of the overall group of course participants. Also, while it was intended to follow up 3 months after completion, the problems with recruitment meant that the time since completion was at least 3 months and for many was considerably longer.

Results

This study examined the impact of a drink driving rehabilitation program on drinking and drink driving variables at least 3 months after course completion. A questionnaire was distributed to program participants, with a response rate of approximately 20%.

Sociodemographics

The majority of respondents (67.9%) were male which is consistent with the figures available for all participants in the program (86.6% male) and includes a much higher level of female participants (see Table3).

Table 3. Age and gender of the sample, compared with UTL participants overall

Demographics	**Sample** (n=28*)	**All UTL Completers**
Gender		
Male	67.9%	86.6%
Female	32.1%	13.4%
Age		
17-24	14.3%	27.2%
25-29	17.8%	16.7%
30-39	25.0%	28.1%
40-49	7.0%	19.0%
50+	35.7%	9.1%

Two thirds (67.7%) were 30 years of age or older which is considerably older than UTL course participants as a whole (7, 8). For a comparison of age distributions see Figure 1.

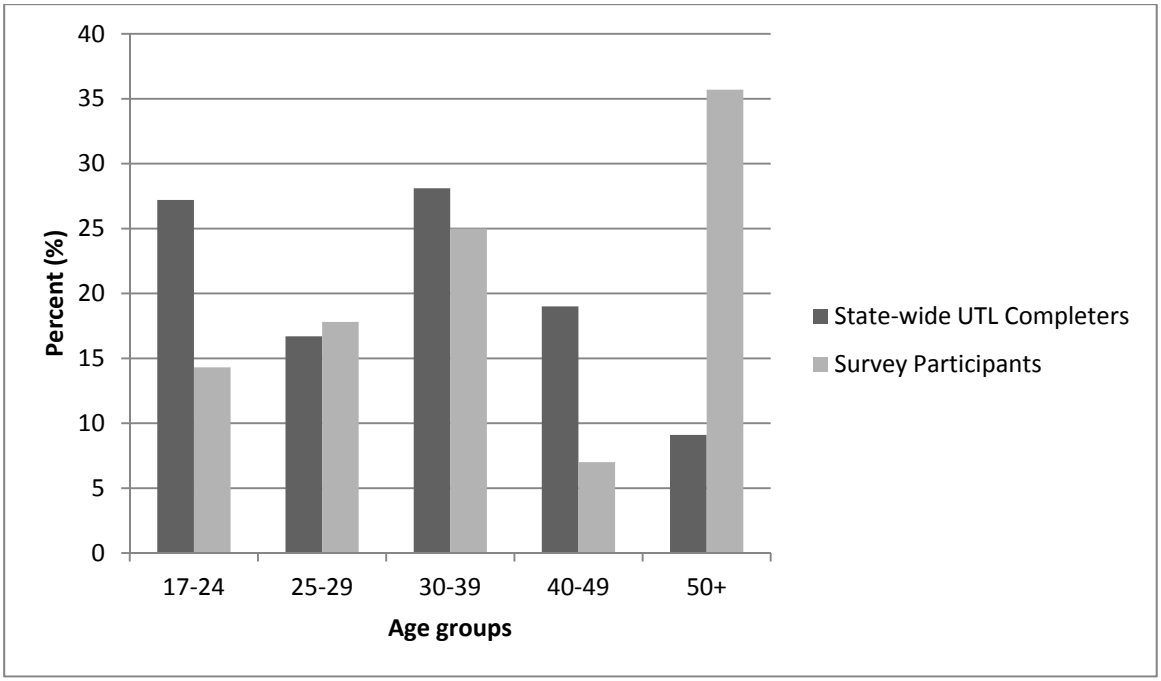

Figure 1. Comparison of age groups between respondents, and all persons who completed the UTL program.

Consistent with international findings and earlier studies of UTL participants (12), program respondents had a lower level of education, were predominantly employed in blue collar occupations, or unemployed and receiving Government assistance (see Table 4). A surprisingly high (74%) proportion reported having access to the internet.

Table 4. Social characteristics of the sample

Social characteristics	**Percentage** (n=28)
Education	
Didn't complete primary	3.6%
Primary school	3.6%
Junior high (year 10)	42.9%
Senior high (year 12)	25.0%
Certificate/diploma	25.0%
Bachelor degree	0.0%
Postgraduate qualification	0.0%
Employment	
None	32.1%
Full time	39.3%
Part time	17.9%
Voluntary	7.1%
Other	3.6%

*Internet Access**	
Yes	74.0%
No	26.0%
Indigenous status	
Neither	92.9%
Aboriginal	0.0%
Torres Strait Islander	0.0%
Both	0.0%
Not stated	7.1%
Occupation	
Managers	3.3%
Professionals	3.3%
Technicians and Trades Workers	13.3%
Community and Personal Service Workers	10.0% 3.3%
Clerical and Administrative Workers	10.0%
Sales Workers	6.7%
Machinery Operators and Drivers	20.0%
Labourers	30.0%
Undefined	
*Receiving Government assistance***	
Not receiving any assistance	60.0%
One assistance program	33.3%
Two assistance programs	3.3%
Three assistance programs	3.3%

* n=23 for this question, as there were 7 non responses.
** n=30 for this question.

Alcohol and drinking

Knowledge about alcohol of UTL respondents

The UTL program provides participants with knowledge about the alcohol content of drinks, as well as information on how the body processes alcohol. While UTL participants could generally identify the quantity of beer, mixed drinks and spirits that represented a standard drink, there was a low level of knowledge about what constitutes a standard glass of wine (see Table 5).

Table 5. Knowledge of standard drinks after completion of the UTL program.

What represents a standard drink?	Percent answering YES	Percent answering NO	Percent Unsure
Full Strength Can of Beer (375ml)*	33.3%	***67%***	0.0%
Pot of Light Beer (285ml)	***79%***	16.7%	4.2%
Nip of spirits (30ml)**	***100%***	0.0%	0.0%
Glass of wine (180ml)*	58.3%	***33%***	8.3%
Can of Mixed Drink with Spirits (375ml)***	18.2%	***82%***	0.0%

*Missing =6 ** Missing =7 *** Missing =8

Table 6. Knowledge of safe drinking recommendations

Area of understanding	Proportion
Recommended Standard Drinks per week (Male)	
<5 (low risk)	20.8%
5-10 (low risk)	25.0%
11-28 (low risk)	37.5%
29-42 (risk)	16.7%
43+ (high risk)	0.0%
Recommended Standard Drinks per week (Female)	
<5 (low risk	18.2%
5-14 (low risk)	50.0%
15-28 (risky)	22.7%
29+ (high risk)	9.1%
Alcohol-free days recommended each week	(n=27)
1 day	11.1%
2 days	33.3%
3 days	33.3%
4 days	7.4%
5 days	7.4%
6 days	7.4%

Their knowledge of safe drinking recommendations was better with the majority correctly identifying low risk levels for both males and females (see Table 6).

Overall alcohol use 3 months after completing UTL

Respondents completed the AUDIT-C (Alcohol Use Disorders Identification Test) (9). At the 3 month follow-up, 72.4% were scored at a hazardous drinking level. However, 23.3% of the sample reported no alcohol use at all after completion of the UTL program.

While no specific scale was developed to measure participants "Readiness to Change" (13), the five items included in the survey reflected the four key stages of change: Pre-contemplation, Contemplation, Action and Maintenance. The majority of participants have taken action to reduce their alcohol consumption including taking part in an alcohol counselling service, while 25% are considering reducing their consumption (see Table ??). Almost all participants are now thinking about their alcohol consumption and in a separate item, 87% of participants reported that they monitored the number of alcoholic drinks consumed each week.

Table 7. Change in action stages since the program

Action	Percent
Increase in alcohol consumption	0%
Alcohol consumption has stayed the same *(Pre-contemplation)*	8%
Thinking about taking steps to reduce alcohol consumption, but consumption has stayed the same *(Contemplation)*	25%
Taken action to reduce alcohol consumption, e.g. attended alcohol counselling service *(Action)*	55%

Alcohol use in the week preceding the survey

Most participants did not drink daily during the last week, with only 2 (both males) reporting they drank every day. For those who reported some drinking in the past week, respondents were more likely to drink on Fridays or Saturdays (see Table 8).

Table 8. Self-reported alcohol use by day of week.

Day of week	Number reporting drinking
Monday	6 (20.0%)
Tuesday	8 (26.7%)
Wednesday	7 (23.3%)
Thursday	6 (20.0%)
Friday	12 (40.0%)
Saturday	12 (40.0%)
Sunday	8 (26.7%)

4.2.4. Impact of the UTL on overall lifestyle

Participants were asked to evaluate the impact of the UTL program on several aspects of their life, not just on drinking behaviour. While the UTL program in general had little impact on the development of new relationships, commencing new activities, and employment, participants did indicate that there were increases in other health behaviours (exercise and diet), as well as an increase in alcohol-free days (see Table 9).

Table 9. Identified improvements in other aspects of life since completing the UTL program.

Changes to life since course completion	**Mean response** (1=strongly disagree; 5=strongly agree)	**Median**
More low alcohol drinks	2.7	2.0
Employment opportunities improved	2.8	3.0
More friends	3.0	3.0
Started new activities	3.3	3.5
More exercise	3.4	3.0
Eating habits improved	3.5	3.5
More relaxed	3.5	3.5
Spend more time with family	3.6	3.0
Relationships improved	3.7	3.0
More alcohol-free days	4.2	5.0

Qualitative feedback on drinking behaviour

The majority of participants reported a reduction in alcohol use. Participants noted how the program provided information about how dangerous alcohol can be, the impact of alcohol, and also increased participants' awareness of their alcohol consumption.

> *"The program has made me realise how dangerous drinking really is"*
>
> *"I used to drink every day till I messed up my life and found it hard trying to get back to work or even getting around"*
>
> *"I have cut back – I am more aware of how much I drink"*

Drink driving knowledge and behaviour after completing UTL

Knowledge about alcohol and driving

The majority of respondents could correctly identify the number of Standard Drinks that could be consumed by an individual (average males and average females) before they would be over the legal Blood Alcohol Content (BAC) for someone with an Open Car Licence (see Table 10).

Table 10. Knowledge of safe drinking recommendations

Driving and alcohol consumption	Proportion
Awareness of the number of Standard Drinks that can be consumed in 1 hr before over BAC (average Male)	(n=28)
1 Standard Drink	10.7%
2 Standard Drinks	82.1%
3 Standard Drinks	7.1%
Awareness of the number of Standard Drinks that can be consumed in 1 hr before over BAC (average Female)	(n=28)
1 Standard Drink	89.3%
2 Standard Drinks	10.7%

The majority of UTL participants could correctly identify the only way to become sober was with time, and correctly dismissed other methods of sobering up (see Table 11).

Table 11. Knowledge of appropriate methods for sobering up

What will make you sober up?	Percent with correct response
Drinking milk (correct response is No)	100%
Drinking coffee (correct response is No)	100%
Vomiting (correct response is No)	96%
Time (correct response is Yes)	86%
Having a shower (correct response is No)	100%
Exercising (correct response is No)	89%

Drink driving behaviour

The survey did not ask participants to detail their drink-driving behaviour of the last 3 months, however participants were asked to document their drinking, and drink driving behaviour for the previous week. Only one person reported drink driving, on one day, in the previous week (this participant was not a daily drinker) (see Table 12).

Table 12. Self-reporting drinking and driving behaviour in the past week

Day of week	Number of those drinking reporting driving
Monday	0 of 6 (0.0%)
Tuesday	0 of 8 (0.0%)
Wednesday	0 of 7 (0.0%)
Thursday	0 of 6 (0.0%)
Friday	0 of 12 (0.0%)
Saturday	1 of 12 (8.3%)
Sunday	0 of 8 (0.0%)

Participants were also asked to provide detail about their current plans to avoid drink driving. Approximately 90% of the sample reported developing a plan to avoid drink driving in the future. Planning ahead and reducing alcohol consumption were the two most frequently reported strategies (see Table13). Strategies that were rarely used by participants included: nominating a support person, not drinking, and drinking but not driving.

Table 13. Strategies to reduce drink driving following completion of the UTL program

Strategies to avoid drink driving	Mean response (1=never; 5=regularly)	Median	Mode
Nominate support person	1.7	1	1
Drink, but don't drive	2.2	3	1
Don't drink	2.6	2	1
Drive, but don't drink	3.4	3	5
Don't drive	3.4	4	5
Say no to drink offer	3.5	3	5
Strategy plan	3.8	4	5
Plan ahead	3.9	5	5
Cut back on drinking	4.1	4	5

Qualitative feedback about planning to avoid drink driving in the future

Most respondents reported developing a plan to avoid drink driving in the future. Several identified planning to reduce (or completely abstain) alcohol consumption in general, while others developed plans for alternative transportation.

> *"I plan to be wise about my drinking and feel free to say no..."*
>
> *"Plan ahead, public transport/taxi, leave car at home; either drinking or driving, never both"*
>
> *"Well when I get back my licence, I won't be taking it for granted, so if planning a night out have more money for taxi, leave car at home..."*

Perceptions about the UTL Course Components

Participants were asked about their perceptions of certain aspects of the UTL program. Mean scores demonstrate that on average participants found all aspects of the program at least 'somewhat useful'. The aspects that were considered most useful were information about strategies to reduce drink driving, information on keeping track of alcohol consumption, and the program facilitator (see Table 14). The least useful part of the course according to participants was their association with the probation and parole officer. However this directly contrasts with other evaluations that indicate the linkage to a corrective services staff member is an important component of effective programs.

Table 14. Participant rating of usefulness of course components

Course component	Mean response (1=useless; 5=useful)	Median	Mode
Probation officer	3.0	2.5	5
Learning about program effectiveness	3.3	4.5	5
The videos	3.7	4.0	4
Working in groups	3.9	4.0	5
Information about different strategies	4.3	5.0	5
Drink tracker	4.4	5.0	5
Program facilitator	4.4	5.0	5

Qualitative feedback about the UTL course

Many participants identified that their responses about alcohol consumption were different following completion of the course. Most reported decreasing their alcohol consumption. There were few comments about the program, but no comments were negative.

> *"Yes I have had to stop drinking altogether because I attempted to drive while I was drunk"*
>
> *"Yes, I used to drink a heap more, now I value my licence more"*
>
> *"Yes I have an alcohol problem and have given up completely. Total abstinence is the only choice"*
>
> *"I've been sober for 6 months now"*
>
> *"The program was ok, the program itself did not stop me from drink driving, the fines & no licence did"*

Discussion

It was expected that the UTL program would result in a reduction in driving after drinking . These results are consistent with the large cohort evaluations of the UTL that have been conducted over the years. It is also consistent with evaluation reports of the leading international and other Australian programs (1-4,6,7, 11, 13). The reduction in the overall alcohol consumption of participants is interesting and informative. Not only did the majority of participants report decreasing their alcohol consumption, participants also demonstrated greater knowledge of the effects of alcohol on the body. There was also a reported movement by the majority of respondents towards contemplating action about their alcohol dependency.

The participants retention (or lack of it) about alcohol information is concerning. People need to make informed decisions. The current program probably needs re-visiting to ensure that the relevant material is being fully covered and knowledge levels checked.

The major limitation of this study was the difficulty recruiting a sample. Every effort was made to recruit through the current program recruitment system with multiple follow up efforts, but this was unsuccessful and the method would need to be re-visited for any future study. The findings are of such import that a further study should be undertaken. Another major limitation related to the respondents reporting on their own previous behaviour and their perceptions of change. In a future study, pre-treatment measures should be taken that are then compared with post-treatment outcomes. This is a difficult task. We are advised by program facilitators that offenders are deeply suspicious of them and of any suggestion of research at the beginning of the program. It is only as they build group experiences and confidence that they are prepared to volunteer for research. A further possible limitation of the present study was the bias to older and female respondents. In these areas the sample was not representative of the treatment cohort however the impact of these differences is difficult to determine. The related bias towards self selection presumably of persons who were pleased with their association with the program is also difficult to assess. A positive perspective is that at least with those who believe that they have benefited from the program alcohol consumption and an alcohol centred life style are modified in the desired direction.

The study identified that attendance at drink driving rehabilitation programs by recidivist offenders has gains both for reducing drink driving but also drinking levels in a heavy drinking group. The findings are consistent with, and potentially extend, the recent introduction by the WHO of the drink driving management measures of RBT and BAC=.05 as high priority strategies in alcohol control (14). The response rate and lack of representativeness of the sample means it is impossible to draw firm conclusions. However, in the context of outcome evaluations indicating significant and meaningful reduction in drink driving in offenders completing drink driving rehabilitation programs, the evidence strongly suggest that the behaviour change underlying this success is probably reduction in alcohol consumption and moves towards treatment and management of harmful levels of alcohol consumption. A more comprehensive study is required, but this study strongly supports further investigation of this issue and the role of drink driving rehabilitation in a community's approach to managing alcohol problems.

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